

Application No. 10/804,610
Reply to Office Action of September 22, 2005

REMARKS

Favorable reconsideration of this application is requested. Claims 1-47 remain pending in the application. Claims 1 and 38 have been amended and are supported for example in Figures 1, 6, and 11 and the descriptions thereof. Editorial revisions have been made in claim 33. No new matter has been added.

Claims 1-47 have been rejected for obviousness double patenting over Serial No. 10/758,815. Applicants respectfully traverse this rejection.

The '815 reference and the claimed invention both claim growing Group III nitride crystals on a Group III nitride layer. The claimed invention, however, is patentably distinct over the claims of the '815 reference. For example, claim 1 recites preparing a Group III nitride semiconductor layer whose surface is partially exposed to provide a plurality of exposed portions. Claim 38 recites a Group III nitride substrate comprising the Group III semiconductor layer having the same features. None of the claims in the '815 reference disclose or suggest such features. Thus, Applicants respectfully submit that claims 1-47 are patentably distinct over the asserted claims of the '815 reference for the at least the foregoing reasons.

Favorable reconsideration and withdrawal of the rejection are respectfully requested.

Claims 1 and 30-47 have been rejected for obviousness double patenting over Serial No. 10/884,252. The issue is rendered moot by the Terminal Disclaimer filed herewith. Applicants are not conceding the correctness of the rejection.

Withdrawal of the rejection is respectfully requested.

Claims 1 and 30-47 have been rejected as obvious over Sarayama in view of D'Evelyn. Applicants respectfully traverse this rejection.

The rejection refers to the embodiment of Figs. 12-16 of Sarayama. However, the cited reference does not teach or suggest the features required by the claimed invention. With regard to claim 1, this reference does not prepare portions of a Group III nitride semiconductor layer for use as seed crystals. The cover 803, which is referenced in the

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rejection, has an opening of variable size, and seed crystals are exposed to the melt via the opening. The size of the opening can be changed in accordance with the crystal growth. While the invention of claim 1 uses plural portions of a Group III nitride semiconductor layer as seed crystals and the Group III nitride crystals are grown therefrom, the reference changes the size of a single contact opening to vary the contact surface between seed crystals and melt. Sarayama also does not teach or suggest causing Group III nitride crystals to grow on a plurality of exposed portions of the Group III nitride semiconductor layer. Therefore Sarayama does not suggest the invention of claim 1 for at least these reasons.

D'Evelyn does not remedy the deficiencies of Sarayama. Applicants respectfully contend that the rejection misapplies D'Evelyn. The rejection contends that D'Evelyn would suggest using crystal regions of a Group III nitride semiconductor layer in Sarayama because D'Evelyn teaches that the crystals are easier to form and of higher quality. D'Evelyn discloses using Group III nitride crystals as seed crystals. However, D'Evelyn, like Sarayama above, does not disclose or suggest causing Group III nitride crystals to grow on a plurality of exposed portions of the Group III nitride semiconductor layer. For at least these reasons, claim 1 is not obvious from the combination of D'Evelyn and Sarayama.

With regard to claim 38, neither D'Evelyn nor Sarayama discloses or suggests a Group III nitride substrate that includes "a Group III nitride semiconductor layer whose surface is partially exposed to provide a plurality of exposed portions and a Group III nitride crystal layer grown selectively from the exposed portions." Thus, claim 38 is not obvious from the combination of D'Evelyn and Sarayama. Applicants respectfully submit that claims 1 and 30-47 are patentable over the references cited.

Favorable reconsideration and withdrawal of the rejection are respectfully requested.

Claims 1 and 30-47 have been rejected as obvious over Shibata. Applicants respectfully traverse this rejection.

With regard to claim 1, this reference suggests that a plurality of seed crystals can be used to grow a plurality of crystals. This does not suggest the invention of claim 1 in which plural portions of a Group III nitride semiconductor layer are prepared as seed

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crystals and Group III nitride crystals grown therefrom. Therefore this rejection also is erroneous and should be withdrawn.

With regard to claim 38, Shibata does not disclose or suggest a Group III nitride substrate that includes "a Group III nitride semiconductor layer whose surface is partially exposed to provide a plurality of exposed portions and a Group III nitride crystal layer grown selectively from the exposed portions." Thus, claim 38 is not obvious from Shibata. Applicants respectfully submit that claims 1 and 30-47 are patentable over Shibata.


In view of the above, Applicants respectfully request that a timely Notice of Allowance be issued on this case. If the Examiner believes a telephone conference would advance the prosecution of this application, the Examiner is invited to telephone the undersigned at the below-listed telephone number.

Respectfully submitted,

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